

ABSTRACT OF THE DISCLOSURE

Disclosed is a method for determining an overlay error between at least two layers in a multiple layer sample. A sample having a plurality of periodic targets that each have a first structure in a first layer and a second structure in a second layer is provided. There are predefined offsets between the first and second structures. Using a scatterometry overlay metrology, scatterometry overlay data is obtained from a first set of the periodic targets based on one or more measured optical signals from the first target set on the sample. Using an imaging overlay metrology, imaging overlay data is obtained from a second set of the periodic targets based on one or more image(s) from the second target set on the sample.